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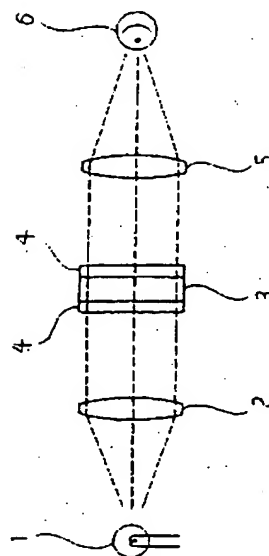
APPLICATION DATE : 20-12-88
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APPLICANT : MITSUBISHI ELECTRIC CORP;

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TITLE : OZONE SENSOR



ABSTRACT : PURPOSE: To obtain a small and inexpensive ozone sensor by detecting a change in color of material oxidized reversibly by ozone.

CONSTITUTION: An ozone sensitive material 4 is red in the natural atmospheric air and turns light blue being oxidized when ozone exists in the atmosphere. The ozone sensitive material 4 has a 5-nitroferroin solution with pH of 0-1.5 solidified on both sides of a transparent glass plate 3 with a gelatin or the like. Absorption of light of the material varies especially within a wavelength range of 400-600nm according to a concentration of ozone and a detection resistance value of a photo detector 6 also varies, which allows the detection of the concentration of ozone as difference in the detection resistance value. In other words, when ozone exists in the atmosphere, the detection resistance value of the photo detector 6 becomes lower than that in a clean atmospheric air. The ozone sensitive material 4 is discolored being oxidized reversibly by ozone and this is utilized for this sensor.

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